

WHAT IS CLAIMED IS:

Sub A(1)

1. A method for providing an education decision support library in an educational environment to enable user access to information over a processor based network, wherein the information assists the user in making a decision in the educational environment, the method comprising the steps of:

loading operational data from one or more sources into a database;

providing one or more tools to extract and transform data into a decision support resource;

10 providing one or more analysis tools that enable a user to manipulate the data; and accessing the one or more analytical tools over the processor based network.

2. The method of claim 1, wherein the step of loading operational data from one or more sources further includes loading data from at least one of a data mart and legacy system.

3. The method of claim 2, wherein the data mart is a mobile data mart.

15 4. The method of claim 1, wherein the step of loading operational data from one or more sources further includes loading data from a human resources department.

5. The method of claim 1, wherein the step of loading operational data from one or more sources further includes loading data from a financial department.

6. The method of claim 1, wherein the step of loading operational data from one or more sources further includes loading historical data, the historical data from a historical file.

7. The method of claim 1, wherein the step of loading operational data from 5 one or more sources further includes loading data from a student information database.

8. The method of claim 1, wherein the step of loading operational data from one or more sources further includes loading data corresponding to an external benchmark.

9. The method of claim 1, further including applying a transformation to the 10 operational data to create a staging database.

10. The method of claim 9, further including applying a business rule to the staging database to create a domain table.

11. The method of claim 9, further including applying at least one business rule to the staging database to create a multidimensional data structure.

15 12. The method of claim 1, further including scrubbing the operational data, the scrubbing the operational data including:
removing operational peculiarities from the operational data; and
validating the operational data.

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13. The method of claim 12, wherein the removing operational peculiarities from the operational data includes at least one of editing, updating, and deleting data with operational peculiarities.

14. The method of claim 12, further including scrubbing the operational data by applying the data to a conforming model.

15. The method of claim 1, further including organizing the loaded operational data into one or more tables, entity objects, data objects or relational objects.

16. The method of claim 1, wherein the step of loading operational data from one or more sources further includes loading data from Test Standards of Learning (SOL).

10 17. The method of claim 1, wherein the step of loading operational data from one or more sources further includes loading data from a membership category.

18. The method of claim 1, wherein the step of loading operational data from one or more sources further includes loading data from a high school course enrollment and Marks category.

15 19. The method of claim 1, wherein the step of loading operational data from one or more sources further includes loading data from a middle school course enrollment and Marks category.

20. The method of claim 1, wherein the step of loading operational data from one or more sources further includes loading data from a special education category.

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21. The method of claim 1, wherein the step of loading operational data from one or more sources further includes loading data from a service program enrollment category.

22. The method of claim 1, wherein the step of loading operational data from 5 one or more sources further includes loading data from a Stanford 9 test category.

23. The method of claim 1, wherein the step of loading operational data from one or more sources further includes loading data from a school wide achievement index category.

24. The method of claim 1, wherein the step of loading operational data from 10 one or more sources further includes loading data from a human resources category.

25. The method of claim 1, wherein the step of loading operational data from one or more sources further includes loading data from an advanced placement (AP) test category.

26. The method of claim 1, wherein the step of loading operational data from 15 one or more sources further includes loading data from at least one selected from the group consisting of a Graduation Information category, an International Baccalaureate Test (IB) category, a Scholastic Achievement Test (SAT) category, an Approved Instructional Materials category, an Elementary Academic Records category, a Facilities Management category, a Family and Early Childhood Education Program (FECEP)/Head

Start Report/Child Plus Database, a Grade Point Average (GPA) category, and a Staffing category.

27. The method of claim 1, wherein the step of loading operational data from one or more sources further includes loading data from at least one selected from the 5 group consisting of an instructional management systems category; a logistics category; a math/science completers category; an Otis-Lennon/School Ability Test category; a Professional Technical Studies Completers category; a Resource Teachers category; and a Standardized Tests category.

28. The method of claim 1, wherein the step of loading operational data from 10 one or more sources further includes loading data from at least one of a Student Discipline category and a Summer School category.

29. The method of claim 1, wherein the step of loading operational data from one or more sources further includes loading data from a Virginia Literacy Passport Test (VLPT) category.

15 30. The method of claim 11, further including creating a plurality of the multidimensional data structures, wherein the plurality of multidimensional data structures are organized into one or more volumes according to a predetermined category of the operational data.

31. A method for providing a decision support library to enable administrator 20 access to information in an educational environment, over a processor based network,

wherein the information assists the administrator in making an administrative decision,
the method comprising the steps of:

- loading operational data from one or more sources into a database;
- scrubbing the operational data, the scrubbing the operational data including
- 5 removing operational peculiarities from the operational data and validating the operational data;
- applying a transformation to the operational data to create a staging database;
- providing one or more analytical tools that enable the administrator to manipulate the operational data in the staging database; and
- 10 accessing the one or more analytical tools and manipulating the operational data over the processor based network.

32. The method of claim 31, wherein the step of loading operational data from one or more sources further includes loading data from at least one of a data mart and legacy system.

15 33. The method of claim 31, further including applying a business rule to the staging database to create a domain table.

34. The method of claim 31, further including applying at least one business rule to the staging database to create a plurality of multidimensional data structures, the plurality of multidimensional data structures being organized into one or more volumes

20 according to a predetermined category of the operational data.

35. The method of claim 31, further including organizing the loaded operational data into one or more tables, entity objects, data objects or relational objects.

36. A method for enabling an administrator to access data relating to the operation of an educational institution, the method comprising:

5 applying a business rule to operational data collected for one or more administrative topics related to the educational institution;

entering the data into a multidimensional data structure based on the business rule; and

presenting the administrator the multidimensional data structure

10 through a network interface, wherein the network interface enables the administrator to manipulate the multidimensional data structure;

analyzing the operational data in the multidimensional data structure based on the manipulation of the multidimensional data structure by the administrator.

37. The method of claim 36, wherein the network interface comprises an

15 Internet browser.

38. The method of claim 36, wherein manipulation of the multidimensional data structure enables the administrator to display a relationship amongst the operational data.

39. The method of claim 36, wherein the one or more administrative topics are

20 selected from the group consisting of logistics, facilities management, financial analysis,

human resources, student achievement index, student discipline, instructional management systems, strategic targets, student grades, standardized tests, course enrollment, student membership, educational topics, Advanced Placement Test (AP), Approved Instructional Materials, Elementary Academic Records, Facilities Management, Family and Early

5 Childhood Education Program (FECEP), Financial Analysis, Grade Point Average (GPA), Graduation Information, High Schools Course Enrollment and Marks, Staffing, Instructional Management Systems, International Baccalaureate Test (IB), Math/Science Completers, Middle Schools Course Enrollment and marks, Otis-Lennon School Ability Test, Professional Technical Studies Completers, Resource Teachers, SAT Test Results,

10 School wide Achievement Index, Service Program Enrollment, Special Education, Standardized Tests, Start Report/Child Plus Database, Student Discipline, Student Membership, Summer School, Standards of Learning (SOL), Stanford 9, and the Virginia Literacy Passport Test (VLPT).

40. A method for providing an education decision support library to enable
15 user access to information in an educational environment, over a processor based network, wherein the information assists the user in a decision process, the method comprising the steps of:

loading operational data from at least one source into a database;

scrubbing the operational data, the scrubbing the operational data including
removing operational peculiarities from the operational data and validating the operational
data;

5 applying a transformation to the operational data to create a staging database;
providing one or more analytical tools that enable the user to manipulate the
operational data in the staging database; and

accessing the one or more analytical tools and manipulating the operational data.

41. The method of claim 40, wherein the step of manipulating the operational
data is performed over a processor based network.
10 42. The method of claim 40, further including the step of applying business
rules to the staging database to create a plurality of multidimensional data structures, the
plurality of multidimensional data structures being organized into one or more volumes
according to a predetermined category of the operational data.
15 43. The method of claim 42, further including arranging faces of the
multidimensional data structures to display different operational data.

44. The method of claim 40, further including the steps of:
displaying operational data categories of the operational data, the operational data
categories represented by tiles; and
arranging the tiles to create multidimensioned charts.

45. A system for providing decision support to enable user access to information in an educational environment, the information assisting the user in making a decision, the system comprising:

an operational data source containing education related data;

5 a decision support portion, the decision support portion inputting operational data from the operational data source, the decision support portion scrubbing the operational data, the scrubbing the operational data including removing operational peculiarities from the operational data and validating the operational data, the decision support portion further applying a transformation to the operational data to create a staging database;

10 an analytical tool that enables the user to manipulate the operational data in the staging database, the user accessing the analytical tool and manipulating the operational data; and

a user interface, the user interface providing access to the analytical tool and displaying the operational data.

15 46. The system of claim 45, wherein the operational data source is a data mart or a legacy system.

47. The system of claim 45, wherein the decision support portion applies a business rule to the staging database to create a domain table.

48. The system of claim 45, wherein the decision support portion applies 20 business rules to the staging database to create a plurality of multidimensional data

structures, the plurality of multidimensional data structures being organized into one or more volumes according to a predetermined category of the operational data.

49. The system of claim 48, wherein the user is enabled to arrange faces of the multidimensional data structures displayed on the user interface, using the analytical tool,
5 to display different operational data.

50. The system of claim 45, wherein the user is enabled to display operational data categories of the operational data, the operational data categories represented by tiles.

51. The system of claim 50, wherein the user is enabled to arrange the tiles using the user interface.

10 52. A system for providing decision support to enable user access to information in an educational environment, the information assisting the user in making a decision, the system comprising:

an operational data source containing education related data;

a decision support portion, the decision support portion inputting operational data
15 from the operational data source, the decision support portion scrubbing the operational data, the scrubbing the operational data including removing operational peculiarities from the operational data and validating the operational data, the decision support portion further applying a transformation to the operational data to create a staging database, the decision support portion applying business rules to the staging database to create a
20 plurality of multidimensional data structures, the plurality of multidimensional data

structures being organized into one or more volumes according to a predetermined category of the operational data, wherein the user is enabled to arrange facets of the multidimensional data structures displayed on a user interface, using an analytical tool, to display different operational data;

5 the analytical tool enabling the user to manipulate the operational data in the staging database, the user accessing the analytical tool and manipulating the operational data; and

 the user interface providing access to the analytical tool and displaying the operational data.

10 53. A system for providing an education decision support library to enable user access to information in an educational environment, the information assisting the user in a decision process, the system comprising:

 means for loading operational data from at least one source into a database;

 means for scrubbing the operational data, the scrubbing the operational data

15 including removing operational peculiarities from the operational data and validating the operational data;

 means for applying a transformation to the operational data to create a staging database;

 means for providing one or more analytical tools that enable the user to manipulate 20 the operational data in the staging database; and

means for accessing the one or more analytical tools and manipulating the operational data.

54. The system of claim 53, further including:

means for applying business rules to the staging database to create a plurality of
5 multidimensional data structures, the plurality of multidimensional data structures being
organized according to a predetermined category of the operational data.

55. The method of claim 2, wherein the data mart is an internal repository,
which is internal to an entity providing the education decision support library.

56. The method of claim 2, wherein the data mart is an external repository,
10 which is external to an entity providing the education decision support library.

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